

Commissioner for Patents
Page 2

Serial No.: 09/995,971

AMENDMENTS TO THE CLAIMS.

This listing of the claims replaces all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Please amend claims 1, 6 and 52.

Please cancel claims 66-79.

1. (Currently amended) A method of providing direct access to a voice mail system (VMS) hosting a voice mail box associated with a service subscriber, the method comprising steps of:

formulating a call set-up message for initiating the establishment of a call connection directly to the VMS without first attempting to complete a call to the service subscriber in response to a request for direct access to the voice mail box by a requesting party, the call set-up message having a format reserved for a redirected call set-up message issued by a service switching point (SSP) in response to an uncompleted call to the service subscriber; and

issuing the call setup message into a common channel signaling (CCS) network to initiate the establishment of the call connection directly between the requesting party and to the voice mail box of the service subscriber.

2. (Original) A method as claimed in claim 1 wherein the CCS network uses signaling system 7 (SS7) protocol, and the step of formulating a call set-up message further comprises steps of:

instantiating an integrated users digital network-user part (ISUP) initial address message (IAM);

inserting a directory number (DN) of the VMS into a called party number parameter in the IAM; and

Commissioner for Patents
Page 3

Serial No.: 09/995,971

inserting a redirecting number parameter, an original called number parameter, and a redirection information parameter into the IAM, in conformance with a SS7 standard.

3. (Original) A method as claimed in claim 2 wherein the step of inserting comprises a step of inserting the service subscriber's DN into the original called number and the redirecting number parameters, in conformance with the SS7 standard.

4. (Original) A method as claimed in claim 2 wherein the step of inserting further comprises a step of inserting a redirecting reason code into a redirection information parameter, the reason code being used by the VMS to select a voice mail prompt to play to the calling party.

5. (Original) A method as claimed in claim 2 wherein the step of inserting further comprises a step of inserting a redirecting reason code into the redirection information parameter, the reason code being a default value indicating that the reason for redirection is unknown or not available.

6. (Currently amended) A method of providing direct access to a voice mail box of a service subscriber to a voice mail system (VMS), the method comprising steps of:

receiving at a call control application, a message sent in response to a request for direct access to the voice mail box by a requesting party;

formulating a call setup message for initiating establishment of a call connection between the requesting party and the VMS without first attempting to complete a call to the service subscriber, the call setup message having a format reserved for a redirected call setup message issued by a service switching point (SSP) in response to an uncompleted call to the service subscriber; and

sending the call set-up message into the CCS network to initiate the establishment of the direct call connection.

Commissioner for Patents
Page 4

Serial No.: 09/995,971

7. (Original) A method as claimed in claim 6 wherein the CCS network uses signaling system 7 (SS7) protocols, and the step of formulating a call setup message further comprises steps of:

instantiating a default integrated users digital network-user part (ISUP) initial address message (IAM);

inserting a directory number (DN) of the VMS's into a called party number parameter of the IAM; and

inserting a redirecting number parameter and an original called number parameter in the IAM, in conformance with a SS7 standard.

8. (Original) A method as claimed in claim 7 wherein the step of inserting comprises a step of inserting a DN of the service subscriber into the original called number and redirecting number parameters, in conformance with the SS7 standard.

9. (Original) A method as claimed in claim 8 further comprising a step of inserting a redirecting reason code into a redirection information parameter, the redirecting reason code identifying the IAM as a request to leave a voice message with a direct to voice mail call.

10. (Original) A method as claimed in claim 8 further comprising a step of inserting a default value redirecting reason code into the redirection information parameter.

11. (Original) A method as claimed in claim 8 wherein the step of receiving the message comprises steps of:

receiving a connection request message; and

inspecting the connection request message to remove three identifiers; a requesting party identifier, a service subscriber identifier, and a VMS identifier.

12. (Original) A method as claimed in claim 11 wherein the step of receiving a connection request message comprises a step of receiving over an Internet protocol (IP) connection, from a server on the Internet adapted to receive click-to-voice mail notifications

Commissioner for Patents
Page 5

Serial No.: 09/995,971

from at least one worldwide web page, a connection request message that conforms to a predefined format and includes directory numbers for the requesting party, service subscriber and VMS.

13. (Original) A method as claimed in claim 12 further comprising steps of:
 - initiating an establishment of a call connection between the requesting party's DN and a virtual instance of a call control node (CCN) prior to the step of sending; and
 - effecting an extension of the call connection from the virtual instance of the CCN to the VMS with the step of sending.
14. (Previously presented) A method as claimed in claim 11 wherein the step of receiving comprises receiving a reconnect request message from call termination equipment, the reconnect connect message including a DN of the call termination equipment, a DN of the requesting party, a DN of the service subscriber and a DN of the VMS.
15. (Original) A method as claimed in claim 14 further comprising steps of:
 - effecting a forward release of a part of the established call connection between a virtual instance of the CCN and the call termination equipment; and
 - initiating an establishment of an extension the established call connection from the virtual instance of the CCN to the VMS with the step of sending.

16. – 51. (Previously cancelled)

52. (Currently amended) A method of providing direct access to a voice mail box of a service subscriber without first attempting to complete a call to the service subscriber comprising:
 - receiving a request for a direct call connection to the voice mail box of the service subscriber from a requesting party; and

Commissioner for Patents
Page 6

Serial No.: 09/995,971

formulating a call setup message for initiating establishment of a the direct call connection between the requesting party and the voice mail box in response to the request for a the direct connection to the voice mail box, the call setup message having a format reserved for a redirected call setup message issued by a service switching point (SSP) in response to an uncompleted call to the service subscriber; and

sending the call set-up message to initiate the establishment of the direct call connection.

53. (Previously presented) The method as claimed in claim 52 further comprising formulating a message that is sent to a call control application to request the call connection to the voice mail box in response to the request for a direct connection to the voice mail box; and wherein the formulating a call setup message is in response to the call control application receiving the message.

54. (Previously presented) The method as claimed in claim 52, wherein receiving the request for a direct connection to the voice mail box comprises receiving an indication that the requesting party selected a click to voice mail option.

55. (Previously cancelled)

56. (Previously presented) The method as claimed in claim 52 further comprising sending the call setup message into a common channel signaling network to initiate the establishment of the call connection between a calling number supplied by the requesting party and the voice mail box of the service subscriber.

57. (Previously presented) The method as claimed in claim 53, wherein formulating a message that is sent to the call control application comprises:

formulating a data message sent to the call control application, the data message including a calling party number for the requesting party, a called party number corresponding to a directory number (DN) of the service subscriber, and a

DOCSOTT: 414036U

Commissioner for Patents
Page 7

Serial No.: 09/995,971

directory number (DN) used for direct access to the voice mail box of the service subscriber.

58. (Previously presented) The method as claimed in claim 56 wherein formulating the call setup message comprises:

formulating a first call setup message for establishing a call connection with the calling party number for the requesting party; and
formulating a second call setup message for establishing a call connection with the DN of the voice mail box.

59. (Previously presented) The method as claimed in claim 57 further comprising:
sending the first call setup message into a common channel signaling network to connect the calling number for the requesting party to a first end of an enhanced ISUP trunk associated with the call control node; and
sending the second call setup message into a common channel signaling network to connect the voice mail box to a second end of the enhanced ISUP trunk.

60. (Previously presented) The method as claimed in claim 58 wherein formulating the second call setup message comprises:

instantiating an integrated users digital network-user part (ISUP) initial address message (IAM) at the call control application;
inserting the DN of the voice mail box into a called party number parameter in the IAM; and
inserting a redirecting number parameter, an original called number parameter, and a redirection information parameter into the IAM.

61. (Previously presented) The method as claimed in claim 60 wherein inserting the redirecting number parameter comprises inserting the calling number for the requesting party in the redirecting number parameter.

Commissioner for Patents
Page 8

Serial No.: 09/995,971

62. (Previously presented) The method as claimed in claim 60 wherein inserting the original called number parameter comprises inserting the DN associated with the service subscriber into the redirecting number parameter.

63. – 65. (Previously cancelled)

66. – 79. (Cancelled)

DOCSOFT: 4140361